



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,447	08/28/2003	Toshihide Hara	FUJA 20.616	6741
26304 7590 03/30/2007 KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585			EXAMINER FOUD, HICHAM B	
			ART UNIT	PAPER NUMBER
			2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

52

Office Action Summary	Application No.	Applicant(s)	
	10/650,447	HARA ET AL.	
	Examiner	Art Unit	
	Hicham B. Foud	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some * c) ☐ None of:
 - 1. ☒ Certified copies of the priority documents have been received.
 - 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/13/2006 and 10/07/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 1-3 are objected to because of the following informalities:

In claim 1 line 14, the term "the PAUSE time" has no antecedent basis.

In claim 2 line 23, the term "the transmission traffic" has no antecedent basis.

Claim 3 is objected because it depends on the objected claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, the recitation "the identifying means further identifies an application of the identified input port based on the attributes of the packets" is vague and unclear because of the term "application", so it is not known the metes and the bounds of the claimed invention. Also, in the disclosure of the claimed invention, there is no mention or definition to the term "application".

Claim Rejections - 35 USC § 103

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tagore-Brage et al (2002/0172205) in view of Joungh et al (6,628,613).

For claim 1, Tagore-Brage et al discloses a congestion controller for an Ethernet switch (see Figure 1) comprising a plurality of transmission queues which have different priorities (see Figure 1 element 14 and page 5 paragraph 0097 wherein element 14 is queues with different priorities), a receiving means for receiving a PAUSE frame (see Figure 1 element 18 and page 5 paragraph 0101 wherein the switch receives flow control information such as a pause frame), a restriction means for restricting transmission traffic from the transmission queues by the received PAUSE frame (see page 5 paragraph 0102 wherein receiving flow control information such as a pause frame causes the transmission to be stopped), wherein the restriction means restricts the transmission traffic from a transmission queue of the lowest priority by the PAUSE frame received at a time other than the PAUSE time (see page 5 paragraph 0103 wherein receiving flow control information such as a pause frame causes the transmission of the lowest priority queue to be stopped).

Art Unit: 2616

Tagore-Brage et al discloses all the subject matter with the exception of restricting the transmission traffic from the transmission queue of the higher priority, by the PAUSE frame received during the PAUSE time. However, Joung et al from the same or similar fields of endeavor teaches that when the congestion still exist, the congested element will send another frame pause within the time pause of the first pause frame to keep stopping the transmission of all packet data (see column 5 line 66 to column 6 line 3). While Tagore-Brage et al is preventing the low priority traffic during congestion, it does not stop the high priority traffic. A person of ordinary skill in the art would recognize a need to control also the high priority traffic during severe congestion. Thus, it would have been obvious to the person of ordinary skill in the art at the time of invention to implement the consecutive pausing frames of the invention of Joung et al in the system of Tagore-Brage et al to control the flow of both high and low priority traffic based on the congestion of different traffic priorities.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 2 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by van Everdingen (7,061,864).

For claim 2, van Everdingen discloses a congestion controller for an Ethernet switch (see Figure 2 element 1) comprising a transmission queue (see Figure 2 element 81-84), a receiving means for receiving a PAUSE frame (see Figure 2, the connection between the element 115 (BPWS generator) and element 52), a shaping means for shaping the transmission traffic from the transmission queue by the received PAUSE frame (see Figure 1 or Figure 2 element 41 (Meter) and element 111 (BPWS generator) that generates a BPWS which is equivalent to a pause signal (see column 3 lines 4-7)), wherein the shaping means restricts transmission speed of the transmission traffic from the transmission queue to or below a transmission speed based on a predetermined shaping value (See column 2 lines 51-58, wherein the meter restricts the transmission speed by activating BPWS generator based on exceeding the predetermined value which is the predetermined data rate).

For claim 3, van Everdingen discloses a congestion controller in which the restriction of the transmission speed is performed by providing a gap in the transmission traffic (See column 2 lines 51-61, wherein the gap in the transmission traffic is the time between stopping the transmission and the re-initialization of the transmission).

9. Claim 4 is rejected under 35 U.S.C. 102(e) as being anticipated by Joung et al (6,628,613).

For claim 4, Joung et al discloses a congestion controller for an Ethernet switch (see Figure 1 element 10) comprising a transmission queue (see Figure 2 element 32), an identifying means for identifying an input port which causes congestion by counting packets resident in the transmission queue, corresponding to the input port (see column

7 lines 19-30, wherein a counter for each input is given as a way for identifying packets and counting them and when a number of counted packets exceeds a threshold, it will send a PAUSE frame), and a transmission means for transmitting a PAUSE frame to other switch which is connected to the identified input port (see column 7 lines 33-35 wherein a PAUSE frame is transmitted to the switch coupled to the congested port).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Joung et al (6,628,613) in view of Tagore-Brage et al (2002/0172205).

For claim 5, Joung et al further discloses a congestion controller in which the transmission means notifies the other switch of the identified application by a PAUSE frame transmitted thereto (see column 7 lines 33-35 wherein a PAUSE frame is transmitted to the switch coupled to the identified port).

Joung et al discloses all the subject matter with the exception of the identifying means further identifies an application of the identified input port based on the attributes of the packets. However, Tagore-Brage et al from the same or similar fields of endeavor teaches that the identifying means identifies an application of the identified input port based on the attributes of the packets (see page 5 paragraph 0103 wherein the identification is based on priority which is either higher or lower priority). Thus, it would

have been obvious to the person of ordinary skill in the art at the time of invention to include the identification based on the priority as taught by the invention of Tagore-Brage et al in the communication network of Joung et al. The motivation of having the identification is targeting a specific packet data instead of all packet data to allow that specific packets to go through to prevent congestion and have a controlled flow transmission.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Williams et al (6,957,269) and Kadambi et al (US 2003/0016628) are cited to show a system that is considered pertinent to the claimed invention.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hicham B. Foud whose telephone number is 571-270-1463. The examiner can normally be reached on Monday - Thursday 10-3 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 2616

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HF

Hicham Foud

Chau T. Nguyen

3/26/07

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600